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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,956	11/27/2001	Thauming Kuo	039592-5075-01US	9006

9629 7590 10/31/2003  
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EXAMINER

ACQUAH, SAMUEL A

ART UNIT PAPER NUMBER

1711

DATE MAILED: 10/31/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

CLO-8

**Office Action Summary**

Application No.

09/993,956

Applicant(s)

KUO ET AL.

Examiner

SAMUEL A. ACQUAH

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-18 is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The indicated allowability of claims 1-5 is hereby withdrawn in view of the following new prior arts.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Clark et al 6,262,149 or under 35 USC 102(b) as being anticipated by Blount Jr. 5,378,757.

The claims are directed to a resin intermediate comprising the reaction product of a glycol and a difunctional sulfomonomer, wherein the resin is substantially free of unreacted sulfomonomer particles. Although the specification does not clearly define “substantially free”, the specification states that the “resin intermediate of this invention typically have an acid number of less than 10 mg KOH/g, preferably less than about 5 mg KOH/g, more preferably, less than about 2 mg KOH/g” (p.8, lines 23-25). Example 1 gives the acid number 1.5 mg KOH/g. It is noted that the claims are silent about the “powder” phase of the product or the acid number. However, Example 1 (step 1) of Clark uses the same NPG and 5-SSIPPA to prepare the resin intermediate by using the same molar ratio as did the Applicant (Clark 23.88 mol / 5.6 mol = 4.26, Applicant's

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Example 1 uses  $113.5 / 26.6 = 4.26$ , with the same catalyst and follow the same procedure. The acid number is less than 3 mg KOH/gm).

Example 2, step 2 of Blount Jr. discloses the preparation of a resin intermediate from NPG (0.478 mol) and 5-SSIPPA (0.084 mol) in a molar ratio equal to 5.7, and an acid catalyst. The resin product is essentially free of acids, and has an acid value less than 1 mg KOH/gm.

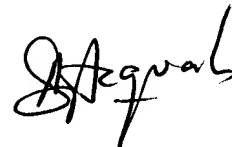
It is the Examiner's position that there is essentially no difference between the claimed intermediate product and those of the cited prior arts. Both use a glycol of 75-85 mol % and difunctional sulfomonomer of 15-25 mol %.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMUEL A. ACQUAH whose telephone number is 703-308-2436. The examiner can normally be reached on M-TH, FRIDAYS OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAMES SEIDLECK can be reached on 703-308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0661.

S.A.A.  
10/27/03



SAMUEL A. ACQUAH  
PRIMARY EXAMINER  
GROUP 1200 1700